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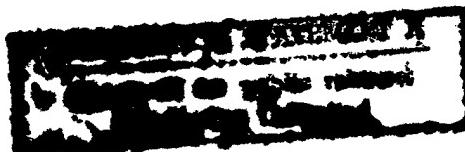
23 February 1983

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# Worldwide Report

TELECOMMUNICATIONS POLICY,  
RESEARCH AND DEVELOPMENT

No. 262



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FOREIGN BROADCAST INFORMATION SERVICE

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23 February 1983

**WORLDWIDE REPORT**  
**TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT**

No. 262

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**WORLDWIDE AFFAIRS**

**BRIEFS**

FRANCE, KUWAIT TELEPHONE CONTRACT--La Signalisation, subsidiary of the nationalized group CGCT (Cie Generale de Construction Telephonique), has won a 435 million francs contract to construct the telephone cable network of the Kuwait capital. Having overcome a strong competition--European and Japanese firms, notably--the group will place within the next 18 months, transmission cables linking telephone exchanges with each other, and subscribers to these exchanges. La Signalisation is well placed to be awarded another contract for the same type of equipment, amounting to about 450 million francs, a decision which should be made during this year. Thanks to this contract, the exportation share of the group should exceed 60 percent of its turnover in 1983, compared to 16 percent in 1979, and 50 percent in 1982. [Text] [Paris LES ECHOS in French 12 Jan 83 p 4] 11,023

CSO: 5500/2599

BHUTAN

BRIEFS

TELETYPE LINK OPENED--Cooch-behar, Dec. 28. The Himalayan kingdom of Bhutan was on Monday linked with the outside world by teleprinter circuit when Mr. Thinley Yeshey, Joint Director, P and T Department, Bhutan, and Mr. Jaharlal Pal, Assistant Engineer (Carrier), P and T, opened the service from Phuntselling and Cooch-behar simultaneously.--PTI. [Text] [Madras THE HINDU in English 29 Dec 82 p 16]

CSO: 5500/7054

LAOS

BRIEFS

CHAMPASSAK DISTRICT WIRED RADIO--At the end of September, the Champassak Provincial Propaganda Service sent a number of cadre specialists to install a wired radio system for the administrative authorities of Sanasomboun District. The job was completed according to the plan. The system includes: 1 TU100 amplifier, 1 radio receiver, 1 tape, 2 microphones, 7 loudspeakers and many other things. This was done to expand the propaganda network throughout the localities to disseminate policies, directives, plans, resolutions and the orders of the party and the state as well as those of the province in a timely fashion so that the multi-ethnic people will carry them out in a unified fashion, vigorously and increasingly taking part in the defense and construction of their locality for growing prosperity. [Excerpt] [Vientiane SIANG PASASON in Lao 13 Oct 82 p 1]

PRIVATE TELEPHONE INSTALLATION--[Question] Is it possible for the people, workers or state employees to have private telephones in their houses? If not, why not? [Answer] There is no reason why not and no objection [to this] because the government's postal service was established to serve the masses in general. In the past as well as now, many people and cadres have been using their own private telephones. If you are interested in getting a telephone installed in your house, please get in touch directly with the Telecommunications Corporation in Nam Phou Ward adjacent to the Ministry of Foreign Affairs any time during office hours. ['Conversations With the Editor' Column] [Excerpts] [Vientiane VIENTIANE MAI in Lao 13 Dec 82 p 3]

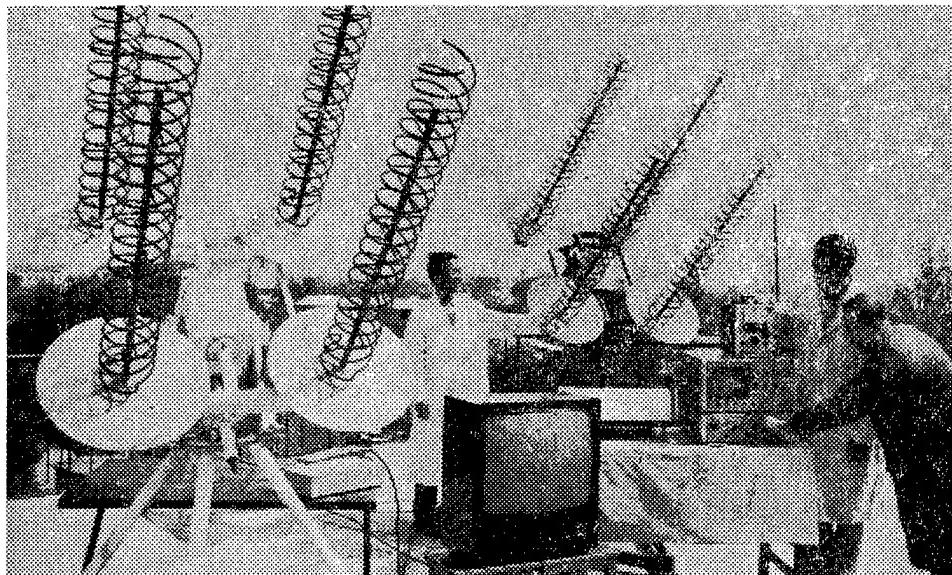
CSO: 5500/4335

PEOPLE'S REPUBLIC OF CHINA

SATELLITE BROADCAST RECEIVER BUILT

Beijing RENMIN RIBAO in Chinese 29 Dec 82 p 2

[Text] The Beijing Institute of Television Technology recently succeeded in building a 714 megahertz satellite direct broadcast receiver which can be used by journalism, sports, and foreign language instruction units.



CSO: 4008/45

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

OVER 300 YUNNAN TV STATIONS--Yunnan Province has now built 306 television relay stations. Nearly 10 million people of all nationalities can watch television programs from Beijing or Kunming. The Yunnan Plateau has high mountain ridges. Beginning 1977 to 1982, engineers and technicians of Yunnan Province's Broadcasting Affairs Bureau scaled more than 300 high mountains, carefully selecting locations for the construction of relay stations. They also built China's highest television relay station on the peak of Cangshan Mountains in Dali, 4,092 meters above sea level. [Text] [Beijing GONGREN RIBAO in Chinese 11 Jan 83 p 2]

SHANGHAI RESEARCH SUCCESSES--Shanghai, 28 January (XINHUA)--Scientists in Shanghai have trial-produced a new generation of single mode fiber optics, the city's science and technology commission reported here today. Used to transmit telephone messages within cables, the capacity of the optical fiber system is 100 times greater than the existing one. The commission said this is only one of 650 major research successes reported by the city's scientists last year the success in the fiber optic research and application, which is close to advanced world standards, will aid modernization of China's communications, the commission said. The fiber optics development work was done by scientists of the Shanghai Science and Technology University and the Shanghai quartz class factory. Other research successes include a new type of textile finishing agent produced by the Shanghai resin plant. The agent which has been developed abroad in the last decade is expected to help improve the quality of polyester yarn and fabrics. [Excerpt] [Beijing XINHUA in English 0706 GMT 28 Jan 83 OW]

CSO: 5500/4118

PHILIPPINES

GOVERNMENT RADIO STATION IN SOUTH LEYTE

Cebu City VISAYAN HERALD in English 11 Jan 83 pp 1, 4

[Text] Construction is getting under way for a government radio station in Sogod, Southern Leyte in Region 8 to serve the information needs of the people in the southern portion of Leyte island.

This was revealed by Sogod Mayor Ignacio D. Siega who said that the new addition to the government broadcasting network will be under the supervision and management of the Maharlika Broadcasting System of the Office of Media Affairs.

Siega also disclosed that the broadcasting station will operate on sufficient power to reach not only the barangays and hinterlands of So. Leyte but also Mindanao and Central Visayas.

The radio station in Sogod, So. Leyte is located at the vicinity of the Southern Leyte School of Arts and Trade with its transmitter atop the hill behind the school grounds.

CSO: 5500/4332

ARGENTINA

BRIEFS

RADIO STATION LICENSE--Buenos Aires, 3 Jan (TELAM)--Today the executive branch awarded to Mario Oscar Capozzolo a license for the installation, operation and use of a radio station in Reconquista, Santa Fe Province. The license is for a 15-year term and may be extended for another 10 years at the request of the licensee. It also turned down a request for a license to operate and exploit radio station LT6 of the city of Goya in Corrientes. [PY260110 Buenos Aires TELAM in Spanish 2130 GMT 3 Jan 83 PY]

RADIO STATION LICENSES RENEWED--Buenos Aires, 27 Dec (TELAM)--The executive branch has awarded a license to Esmeralda Radio Broadcasting, Inc., to operate and exploit for 15-year term radio station LS6 Radio Del Pueblo. It has also renewed the licenses of the following radio stations for a 15-year term: LU20 Radio Chubut of Trelew, LT24 Radio San Nicolas, LT36 Radio Chacabuco, LT 27 Radio Dolores, LU34 Radio Pigue of Buenos Aires Province, LT23 Radio San Jenaro Norte and LT28 Radio Rafaela of Santa Fe. [Buenos Aires TELAM in Spanish 2046 GMT 27 Dec 82 PY]

RADIO, TELEVISION LICENSES RENEWED--Buenos Aires, 17 Jan (TELAM)--The executive branch has extended for the term of 15 years the licenses for LW82 Television Channel 11 of Salta; LS5 Radio Rivadavia and LS10 Radio Del Plata, both of the city of Buenos Aires; LT20 Radio Junin of Junin; LT35 Radio Mon of Pergamino; LU24 Radio Tres Arroyos of Homonima; LU2 Radio Bahia Blanca and LU3 Radio Del Sur, both of Bahia Blanca; LT25 Radio Guarani of Curuzu Cuatia, Corrientes; LV6 Radio Nihuil and LV10 Radio De Cuyo, both of Mendoza; LT43 Radio Mocovi of Charata; and LV11 Radio Santiago Del Estero of Santiago Del Estero. Through Decree 107 it also renewed for the term of 20 years the license for use of LW2 Radio Tartagal of Tartagal. [Buenos Aires TELAM in Spanish 1640 GMT 17 Jan 83 PY]

GROUND SATELLITE STATION--The National Telecommunications Company has dedicated a new ground station of the national satellite communications system at Ingeniero Jacobacci, Rio Negro Province. The national satellite communications system is aimed at establishing telephone, radio and television communications with isolated or small communities. [Buenos Aires Domestic Service in Spanish 2000 GMT 13 Jan 83 PY]

RADIO ANTARTIDA LICENSE AWARDED--Buenos Aires, 12 Jan (TELAM)--The license to operate LR9 Radio Antartida has been awarded to the enterprise Desup Limited, in a ceremony attended by Col Pedro Armando Coria, operation undersecretary of the Inter-American Press Association. [Buenos Aires TELAM in Spanish 2145 GMT 12 Jan 83 PY]

TV STATION LICENSES EXTENDED--Buenos Aires, 28 Jan (NA)--It was reported today at Government House that the licenses of the following TV stations from the interior of the country have been extended for 15 years: LU-82 TV Channel 10 of Mar Del Plata, LW-81 TV Channel 7 of Santiago Del Estero, LT-81 TV Channel 9 of Resistencia and LT-83 TV Channel 3 of Rosario. The respective concessionaires are: TV Mar Del Plata Inc., CAS TV Inc., Resistencia Industrial and Financial Enterprise, Inc., and Litoral Television Inc. [PY052149 Buenos Aires NOTICIAS ARGENTINAS in Spanish 1424 GMT 28 Jan 83 PY]

CSO: 5500/ 2033

BROADCASTING COMPANY TO INAUGURATE PAY TV SERVICE

Hamilton THE ROYAL GAZETTE in English 21 Dec 82 p 2

[Text] The Bermuda Broadcasting Company yesterday announced its plans to sell a subscription TV channel next year.

BBC managing director Senator the Hon. Quinton Edness said yesterday the service would be similar to that expected to be launched in the Spring by Starvision — scrambled signals would be transmitted over the air and picked up by decoder boxes fixed to subscribers' TV sets.

But the BBC's channel — judging by initial cost quotes — will be the most expensive TV subscription channels expected to go on the market in 1983.

Mr. Edness said he thought his service would cost somewhere in the region of \$20 per month. Starvision

boss Mr. Arnold Francis QC has said his subscription channel would cost about \$15. And Mr. Gavin Wilson of Cablevision predicted his 12-channel underground service would cost \$16.95.

The BBC service, Mr. Edness said, would be an equivalent to the British BBC 2 offering quality programming. In a Press release, the boss of both ZBM and ZFB commercial stations said: "It is proposed

that the new service will bring to Bermuda programming of the highest calibre, including the performing arts with music, dance, theatre and opera."

He continued: "We also intend to present, on an ongoing basis, specifically selected first run films to enhance evening viewing."

Children's programming would be a special priority including film, adventure series, cartoons and monthly specials drawn from around the world.

Mr. Edness said it was too early to predict a target date for the introduction of the company's pay TV. "We feel confident it will happen in 1983," he said.

He did not think it likely that the public would be offered shares in the company's new venture although no decision had yet been taken. "We think we will be able to do this without additional public funds," he said. Members could already invest in the company by buying BBC shares through local banks.

Earlier this month Starvision boss Mr. Arnold

Francis announced it was putting its share offering on the market and said his firm had set a spring target date to begin its operation.

Mr. Wilson said last week he expected his first viewers to be linked to an underground cable network — which will be laid in a series of segments moving out from the Cable and Wireless headquarters at Devonshire — by the Summer. It will take considerably longer for Cablevision to be introduced Island wide — as 250 miles of network have first to be dug underground. It is anticipated that it would take 16 months before all Bermuda TV owners wishing the cable service would be hooked up.

But customers would be linked to the system live as cable was laid, he said.

CSO: 5500/7257

BOLIVIA

BRIEFS

NEW TELEPHONE LINES--The director of the Municipal Automatic Telephone Service announced that all is ready for immediate installation of 3,000 Series 10 telephone lines. The only action needed is authorization by the Administrative Council to begin setting up the equipment. This will solve the problem of the Series 10 subscribers, who bought lines 5 years ago but were not able to have them installed in the city's central and southern zones because of lack of infrastructure. The announcement to the press indicated that since he became director for automatic telephones about 5 months ago, he has been working constantly toward a solution of the problem of the Series 10 subscribers: 1,000 telephone lines were installed in the telephone exchange near the Hippodrome, and at the present time, 1,000 lines are connected to private homes located principally in the districts of La Chimba, Villa Galindo, Queru Queru and Cala Cala, as well as some in the center of the city. It was noted that in case the job is contracted out, there would be about a year's delay in setting up these lines and about 30 million Bolivian pesos would be paid to a foreign company for the job. If the work is performed by technicians working for Automatic Telephones, the work would begin next week and the cost of setting up the network would be lower than what would be paid to a foreign firm.  
[Excerpts] [Cochabamba LOS TIEMPOS in Spanish 11 Jan 83 p 7] 11989

NEW RURAL TELECOMMUNICATIONS EQUIPMENT--The General Directorate for Rural Telecommunications (DITER) will set up new "semiduplex" equipment to make direct connection with the National Telecommunications Enterprise's microwave units, according to DITER's director, Clovis Velasquez. He noted that Hernando Poppe, the minister for transport and communications, is engaged in advanced negotiations with a U.S. firm which is providing transmission equipment to Bolivia. The "semiduplex" units, with an estimated cost of \$5,000, will be installed in the nine departmental capitals and in other areas where DITER offices have heavy communications traffic. He said that in the present phase there will be smaller-scale projects to reconstruct lines and install new sections, which will establish 50 new rural telecommunications offices in the valley and in the altiplano. In the preceding phase, an extensive project was implemented for installation of cables and electrical systems for interconnecting the valleys, the eastern region and the altiplano. Since 1981, centers have been established in Beni, Pando and Tarija departments; this has made possible an "acceptable and reliable" rural telecommunications service. He also said that in the past 40 days, more than 30 rural communications offices have been set up, along with a number of phone booths and transmitting units in the city of Santa Cruz.

He added that during the next few months, Robore, San Ignacio de Velasco, San Jose de Chiquitos, San Matias and Santa Ana will get new rural telecommunications offices, which will cost about 6 million Bolivian pesos. [Text] [La Paz PRESENCIA in Spanish 12 Jan 83 p 9] 11989

URBAN TELECOMMUNICATIONS DEMANDS GROWING--The Trinidad Automatic Telephone Cooperative, Ltd (COTEAUTRI) has installed 2,500 telephone lines, enlarging the urban communications network in this capital, which previously had only 800 lines. With 3,000 lines, the area's most pressing demands are practically met. There are many potential requests for service, especially from individuals who do not now have the initial deposit required. For this reason, it is believed that demand could double from the present figure within another 2 years. Engineer Hans Slinck, head of the telephone cooperative, said that there are still lines available, and that they can be installed upon payment of 20,000 Bolivian pesos, which can be spread out in payments for the convenience of the subscriber. Although the users still find it difficult to use 5 digits, they are getting accustomed quickly to the new system, which shows that the technicians have done their job effectively. Also the new telephone service has had positive results for the development of this city, where communication was being hindered because of growth and the increasing urgency of urban communications. [Text] [La Paz EL DIARIO in Spanish 11 Jan 83 p 5] 11989

CSO: 5500/2027

COSTA RICA

BRIEFS

INTERFERENCE FROM RADIO SANDINO--It has been charged that nighttime transmissions by Radio Sandino, the official Nicaraguan station, are penetrating almost throughout Costa Rica, blocking local stations. After 1700, the Sandinist radio's transmissions can be heard clearly, launching strong attacks on the Costa Rican Government and people, according to several listeners. While asking the government to act quickly to put an end to this interference on 760 khz, a mediumwave frequency, the people of Costa Rica note that the Sandinist government is once again boasting of its power by interfering in our country's radio frequencies to broadcast insults. [Text] [PA300113 San Jose Radio Reloj in Spanish 0100 GMT 29 Jan 83]

CSO: 5500/2031

MEXICO

RADIO TO VARY BROADCASTS FREQUENCIES

PA242313 Mexico City UNOMASUNO in Spanish 17 Jan 83 p 6

[By correspondent Teresa Gil]

[Text] Juchitan, Oax, 16 Jan--"radio Ayuntamiento popular is in the hands of the people: was the first sentence--in Zapotec--aired today as radio Xeap began operations. The station is owned by the labor, peasant, student coalition of the Isthmus (Cocei) Communist City Board. Moments later, the station reported that due to the constant interference to which it is subject "by the federal government: its frequencies will be varied to counter jamming.

In the midst of a great celebration during which the Juchitan residents tuned to the station, municipal President Leopoldo de Gyves de la Cruz pointed out that since the mass media have served to spread a decadent culture, alien to that of the people, it is time for the people to control and use the media for their own benefit.

He levied serious charges against the mass media, saying they are "in the hands of exploiters" that manipulate popular interests in order to serve the rich and powerful, while when popular organizations request means to express themselves, they face red tape and evasive answers, as was the case with the permit requested by radio Ayuntamiento popular.

According to the Xeap technicians, there are over 800 commercial radio stations in the country, but only about 23 cultural stations, including university stations. After permits to operate radio stations were requested by the Puebla and Guerrero Universities and the Municipality of Juchitan (which were denied), the federal government issued commercial permits on similar frequencies in Puebla and Guerrero. The Xeap technicians also reported that it can be technically demonstrated that free channels exist--as in the case of the Guerrero University--despite government denials.

While the Cocei ceremonies were underway, at Pri headquarters a few streets away the popular defense committee and the owners of radio Hit (a commercial radio station here), met. They charged that Cocei "equipped its station with apparatus sent from socialist countries," and committee leader Teodoro Altamirano Robles mentioned that committee's request to the government secretariat that the station be dismantled and that an investigation be carried out regarding the "subversive foreigners who work there."

De Gyves de la Cruz reported that the equipment is made locally and that Mexican technicians set it up piece by piece as the parts were purchased. He said that Cocei has already reported this to the communications secretariat, because this is a real airspace war in which the aim is to rescue this space that originally belonged to the people, the station has faced many obstacles and pressures.

CSO: 5500/2030

BANGLADESH

MINIMUM TELECOM FACILITIES FOR UPGRADED THANAS

Dhaka THE BANGLADESH TIMES in English 6 Dec 82 p 1

[Text] The Government has decided to provide minimum telecommunication facilities in all the upgraded thanas, reports BSS.

Accordingly, 30-line new manual exchanges will be installed on top priority basis in the 16 thanas out of 55 upgraded thanas which have no telephone exchange. The thanas are--Shibalaya and Shirajdikhan in Dhaka; Karimganj in Mymensingh, Rajanagar in Sylhet, Matiranga and Kowkhali in Chittagong Hill Tracts, Alikadem in Bandarban, Mohadepur and Bagmara in Rajshahi, Raiganj in Pabna, Ghoraghata in Dinajpur, Khanshana in Rangpur, Salika in Jessor, Kathalia in Barisal, Rajoir in Faridpur and Baitaghata in Khulna.

Along with these exchange facilities trunk line facilities will also be set up to meet the increasing telecommunication requirement of these upgraded thanas with the district and the capital city.

The provision of telecommunication facilities to 45 thanas in the first instalment has already been completed.

The T and T Board has also chalked out a comprehensive programme for strengthening and improving the telecommunication facilities of all the thanas of the country on a permanent footing as a part of Government policy to provide rapid and reliable telecommunication facilities in the rural areas.

CSO: 5500/7056

BANGLADESH

DIGITAL EXCHANGE, OTHER IMPROVEMENTS FOR DHAKA PHONES

Dhaka THE NEW NATION in English 7 Dec 82 pp 1, 8

[Text] Over 60,000-line digital electronic exchange will be installed in the capital with the World Bank assistance to cater to the fast growing demand for telephone connections official sources said in Dhaka yesterday, reports BSS.

The sources stated that the expansion of this system will be constant to ensure the availability of telephone connection ahead of demand.

Arrangements are also in progress to connect Dhaka-Narayanganj telephone through microwave link. The present link between Dhaka and Narayanganj is subject to constant breakdown due to what is said poor underground work and interference by traffic.

The country will have nationwide dailing and inter-continental trunk dialing system by July, next year.

2,000 New Phone Lines at Gulshan by January

Two thousand new connections will be provided to subscribers from the Gulshan Telephone Exchange by January next, reports BSS.

According to official sources, the expansion of this exchange from 5000 lines to 7000 lines is expected to be completed by December 16 next.

The sources further said that work on 10,000-line new telephone exchange at Nilkhel would be technically completed by December 16. The subscribers are expected to get new connections by first quarter of the new year. The expansion will ease to some extent the pressing demand for new connections in Dhaka city where 55,000 applications have been pending for the last several years.

During the last six months a record number of over 2,000 new connections have been given to private parties by reducing Government connections.

CSO: 5500/7057

PLANS TO OBSERVE COMMUNICATIONS YEAR TOLD

Nationwide Dialing System

Dhaka THE BANGLADESH OBSERVER in English 2 Jan 83 pp 1, 12

[Text]

Deputy Chief Martial Law Administrator and Minister for Communications Rear Admiral M. A. Khan said in Dhaka on Saturday, nation-wide dialling project connecting the capital with rest of the country will be completed by next July, reports BSS.

He said the work on the international trunk exchange project which is steadily progressing will be over by the end of the year.

The DCMLA was speaking at a function at GPO to release the special stamp cancellor marking the commencement of World Communication Year (WCY) 1983. Mr. M. A. Rashid, Additional Secretary, P.T. and T Division, Ministry of Communications and Mr. Fazlul Islam, Director General, Bangladesh Post Office also spoke on the occasion.

Rear Admiral Khan said communication and development are inseparable and added that without an adequate communication infrastructure, development strategies would have limited chance of success. He hoped that WCY would provide an opportunity for all countries to undertake an in-depth review and analyse their policies on development of communication and accelerate the development of communication infrastructure.

The DCMLA said the government has given much stress on the development of telecommunication and postal services in the country and added the whole communication system would be further expanded and developed on a priority basis. More telephone connections will be made and new post offices

opened soon he added.

The United Nations on a resolution adopted in November 1981 decided to observe 1983 as the World Communication Year aimed at attracting greater global attention to this vital sector. WCY is being observed under the auspices of International Telecommunication Union in all the 158 member countries. In Bangladesh, stamp cancellor will be used in all the general post offices and R.M.S., Dhaka for 15 days starting from Saturday as part of the observance.

Rear Admiral Khan said an improved telecommunication system will help in boosting development of trade and industry in the country easing the unemployment problem.

The DCMLA asked the employees of P.T. and T. Department to play a vital role in the development of the communication system and contribute their mite in building a new Bangladesh. "You are main instrument for its success" he added.

Mr. Rashid said a national committee consisting of representatives of different ministries and divisions has been set up to coordinate the various activities connected with the observance of WCY. Elaborate programmes have been chalked out in observance of the year. The programme included holding of seminar and symposium to arouse competitiveness among the employees for improving the services and observance of telecommunication traffic week he added.

He said ten model public call offices will be opened in differ-

ent parts of the country this year in connection with the observance of WCY. Exhibition of documentary film on the development of telecommunication is under active consideration of the government, he added.

### Improvement for Existing Facilities

Dhaka THE NEW NATION in English 3 Jan 83 p 5

[Editorial]

[Text]

A nationwide dialling project connecting the capital with the rest of the country will be completed by July next as stated by the Communication Minister, Rear Admiral M.A. Khan. This announcement by Admiral Khan, coming as it does at the outset of the World Communication Year carries great significance for the economic development of the country.

Reaffirming a universal truism the minister said communication and development are inseparable and that without an adequate communication infra-structure development strategies would have limited success. He hoped that the World Communication Year would provide an opportunity for all countries to undertake an in-depth review and analyse their policies on development of communication.

In a country like Bangladesh where a vast percentage of the rural populace live outside the main theatres of economic activities and infra-structural facilities are so limited, expansion of telecommunication deserves the highest priority in developmental perspective. Any investment on infra-structure pays off on a long-term basis and makes up a permanent asset of the nation.

Therefore, while expansion is welcome we would also do well to remember that further expansion without consolidation of the existing facilities has sometimes resulted not only in thinning out of resources but outright waste. The nation already possesses a modestly developed telecommunication system even if on a limited scale. We have digital system of dialling and subscribers' trunk dialling (STD) system connecting the capital with a number of

district towns. But the efficiency of STD is low and the callers often have to resort to trunk booking because STD would draw a blank. Telephones in the city also remain too frequently out of order or function erratically giving cross connection and being jammed. There, coupled with bad maintenance and service inefficiency like unreasonable delay in providing trunk connection, make up a sorry picture. Without removing the faults, mechanical, organisational or otherwise, expansion will not be that much effective.

We also think in the expansion scheme the highest priority should go to the coastal and disaster-prone areas and important communication centres and 'ghats'. Public call office should be set up in all important 'ghats' and railway stations.

At the same time an individual citizen should be enabled to derive the benefits of the expanding telecommunication facilities. The amount of deposit which an applicant has to give has been raised to Taka 4000/-. This is hardly commensurate with the prevailing incomes and wage-structures. In modern life telephone is not a luxury and it is even less so for members of particular professions.

CSO: 5500/7962

COMMUNICATIONS MINISTER SPEAKS AT PHONE EXCHANGE OPENING

Dhaka THE BANGLADESH OBSERVER in English 11 Jan 83 pp 1, 12

[Text]

The DCMLA and Minister for Communications, Rear Admiral M.A. Khan on Monday said that 22 new telephone exchanges had been set up in the upgraded thanas while expansion work of manual exchanges in 75 thanas carried on, reports BSS.

Inaugurating the expanded Gulshan Telephone Exchange in Dhaka on Monday morning, the DCMLA observed that the communication facilities between thanas and district head quarters were almost nil.

An additional two thousand new telephone lines have been commissioned in the Gulshan Exchange on Monday bringing the total to seven thousand. The newly commissioned lines have been designed, manufactured and installed by Bangladeshi engineers and technicians of Telephone Shilpa Sangath (TSS), Tongi.

The inaugural function was attended, among others, by Mr. M.A. Rashid, Additional Secretary, In-charge P and T Division, Ministry of Communications and Chairman of P and T Board, Mr. A.M. Ahsanul Huda.

The DCMLA regretted that nothing was done so far for the development of telecommunications in the rural areas where 85 per cent of our total population live. "We have not even spent five per cent of the total allocation made to telecommunications under the Fifth Development Plan in the rural areas", he added.

The present Government he said, had taken up this task on a priority basis for fully meeting the needs of those areas on an overall basis. He said that ten thousand new telephone connections were being made during the last 10 months. "The next 10 months will also see similar developments and every effort of the country would be directed

to connect with district head quarters within the next two years at a cost of Taka 30 crore.

Showing a detailed picture of the expansion work of the tele communications in the country, the DCMLA said that another automatic telephone exchange would be installed throughout the country during the current plan period which would add some 45,000 lines.

At this a 10,000-line automatic exchange would be installed in Dhaka, replacing the connections in the old city made with World Bank money within two years, he said. The Minister said that a new telephone exchange would be set up at Nilkhel with 10,000 lines within a few weeks. The existing 300 channel between Dhaka and Chittagong would be increased to 1000 channels after replacing the 1-year old microwave links with a loan from the Japanese Government, he said.

Rear Admiral Khan said that the prime objective of the present Martial Law Government of General Ershad was to ensure speedy progress in the socio-economic system by solving the basic problems with a view to driving out the social disparity which existed in the country.

Emphasising the great role of telecommunications in the overall progress of the country he said so we are trying to meet the increasing demands of telephones as well as provide facilities to the subscribers.

The DCMLA expressed the hope that the people associated with the Telephone Department would extend all out help for making the telecommunications system smooth and welfare oriented.

Later, he went round the different sections of the exchange.

BANGLADESH

BRIEFS

NEW AUTOMATIC EXCHANGES--Two automatic exchanges at Patuakhali and Jamalpur district headquarters have been commissioned this month under trial operation, a Press release of Telegraph and Telephone Board said in Dhaka on Tuesday, says BSS. A 600-line automatic exchange replacing the old 400 line automatic exchange has been put under trial operation at Patuakhali. The old exchange had 380 working connections and 25 pending demand. The new exchange will be able to meet all the present and near future demands. This automatic exchange at Patuakhali will be formally inaugurated on December 30. Another 600 line automatic exchange replacing 300 lines old manual exchange at Jamalpur will be put under trial operation from midnight of December 15. At present there are 300 working connections and 275 pending demands at Jamalpur. This exchange will be able to meet all demands. [Text] [Dhaka THE BANGLADESH OBSERVER in English 15 Dec 82 p 12]

NATIONWIDE DIALING SYSTEM--Chittagong, Dec. 17:--The DCMLA and Minister for Communication Rear Admiral M. A. Khan visited the Nandan kanon telephone exchange here today, reports BSS. According to official sources the DCMLA was happy to see that the exchange was functioning without any defect. He directed that telephone operators should be ladies as it will cut down corruption and complaints of rude behaviour. He was told that as per his last direction 1000 lines from EMD exchange have replaced lines of old F-1 exchange. There are now at present about 6000 connections in the F-1 exchange which were set up in the 1950's. The DCMLA directed that 1000 more F-1 lines are to be replaced by EMD lines from existing surplus of EMD connection. He was told that due to improved allocation no demand for new connection is at present pending in Chittagong telecommunication region. Mr Khan also inspected the nationwide trunk dialling system at Chittagong. The exchange which has been completed is now undergoing trial operations. According to official sources the nationwide dialling exchange will be installed in Chittagong, Bogra, Khulna and Dhaka and the country will have nationwide dialling system by the middle of 1983. There is also going to be international trunk dialling system by the end of 1983. [Text] [Dhaka THE BANGLADESH OBSERVER in English 18 Dec 82 p 12]

PATUAKHALI PHONE EXCHANGE--A 600 lines automatic exchange was formally inaugurated on Thursday at Patuakhali by Maj. Gen. K. M. Abdul Wahed. Zonal Martial Law administrator. Zone-E at a simple ceremony, says a T&T Board Press release in Dhaka on Thursday reports BSS. Maj Gen Wahed also inaugurated Patuakhali-Dhaka Subscriber Trunk Dialling (STD) system. The newly commissioned 600 line exchange has been manufactured fully by the Bangladesh engineers and Technicians at Telephone Shilpa Sangstha, Tongi, Dhaka. The new exchange at Patuakhali has taken the load of 330 subscribers of the old exchange and will be able to meet all the pending demands in hand and also future demands for quite some time. Taka 55 lakh have been spent for the exchange and another Taka 14 lakh will be spent for underground cable laying within this financial year. Dhaka telephone subscribers can dial Patuakhali number by dialling 988 and then the Patuakhali number. Similarly Patuakhali subscribers can dial telephone subscribers of Dhaka by dialling 91 and then Dhaka number. [Dhaka THE BANGLADESH OBSERVER in English 31 Dec 82 p 12]

CSO: 5500/7061

## TATA EXPERT SPEAKS ON INFORMATION TECHNOLOGY

Bombay THE TIMES OF INDIA in English 13 Jan 83 p 3

[Text]

BOMBAY, January 12.

JUST as the right to possess a passport has been assured to every citizen by the constitution, the right to own a telephone should also be incorporated in our statute to dispel the myth that the telephone was a luxury, according to a senior professor of the Tata Institute of Fundamental Research, Dr. R. Narasimhan.

In a key-note address on information technology at the tenth annual convention of the Institution of Electrical and Electronics Engineers (IEEE), India council, delivered here today, Prof. Narasimhan regretted that there was a lack of understanding of the importance of communications development in our country.

To be a truly industrialised nation, our "internal economy" should be transformed into a "information economy," he said.

The information sector or information occupations, which include creation and transformation of information and production and maintenance of equipment for information dissemination, had become a dominant sector in the industrialised world and its contribution to GNP had been growing.

The coming together of computer and communications technologies has radically transformed the information technology, thanks to major developments in micro-electronics, laser, printing and display technologies, fibre optics and satellite in communications and basic innovations in the deployment of soft ware technology, Prof. Narasimhan said.

## INDUSTRIAL BASE

Describing the Indian condition as a curious case of "industrialisation without information infrastructure", Prof. Narasimhan said we had a comprehensive industrial base producing almost all items but without even a semblance of the necessary infrastructure like construction, management, finance, transportation and storage, communications, recreation and com-

munity services.

Often production operations were managed without or inadequate information input. The average investments in telecommunications as a percentage of the total GNP per annum in India was the lowest among the developing countries, he added.

The end result, according to Prof. Narasimhan, is that every one of our products and facilities has become economically unviable, cost-ineffective, expensive and uncompetitive.

Quoting the Japanese example which became a world leader in trade and industry without any raw materials and in "implementing" technology without inventing it, Prof. Narasimhan opined that India's weakness was its inability to absorb technology from outside and grow an economically viable indigenous base for it.

The lessons for India were that it should develop an informed and competitive domestic market for all goods and services, it should bring up the average level of literacy and education of the workforce and make the production activities in the country technology-conscious in order to improve their quality, he added.

Earlier, Dr. H. N. Sethna, chairman of the Atomic Energy Commission, in his talk on "Technology for the nuclear age", pointed out that the need for a safe and reliable control system in a nuclear reactor had necessitated innovations in areas spanning from transducers to computers.

The uranium enrichment process was, again, a challenge successfully met by a combination of modern technologies, he said. Accurate calculations and extensive simulated experimentation and specialised techniques for design and fabrication of mechanical structures for reactors bore testimony to the intensive nuclear technology.

Mr. R. M. Vasagam, project director of the APPLE spacecraft project, outlined the milestones in space technology during the last 20 years and said the commercial communications satellite INSAT-1B, having already been corrected for the known

deficiencies, would be launched during the middle of this year.

The department of space, which had spent Rs. 400 crores in the first two decades, is poised for an additional investment of Rs. 1,000 crores in the next 10 years and among the major projects of the department is the launching of Indian remote sensing satellite by 1987.

Micro-electronics or the technology of integrating a large number of electronic components and introduction of Very Large Scale Integrated circuits, (with a million components on a tiny silicon chip) have drastically changed the industry and it will pervade every phase of human activity, according to Prof. K. V. Ramanathan, of the TIFR. The VLSI technology would outstrip our capabilities in designing useful electronic systems and, at the same time, this superior technology would bring about a drastic cost reduction, he said.

Developing countries need not copy the VLSIs of the developed nations but they should identify the major usage areas like transportation, agriculture, medicine, telecommunications, transportation, ticket reservation, accident prevention, electronic mail, agriculture, medicine and other sophisticated areas, especially robotics for the handicapped and illiterate.

Any developing country, including India, till it set up a silicon foundry, should immediately tackle the application areas and introduce the VLSIs as these chips could now be designed in Bombay and manufactured either in California or Tokyo, Prof. Ramanathan said.

Prof. P. V. S. Rao of the TIFR, introducing the theme of the convention, "The changing face of technology 1980-2000," said that technological change was quantitative in the first 150 years, but it was qualitative and radical during the last 50 years. The frontiers of nuclear technology, space technology, electronics, energy, oceanography and satellite communications, thus amply illustrate the changes.

CSO: 5500/7060

INDIA

PANEL APPOINTED TO PREPARE TELEVISION PLAN

New Delhi PATRIOT in English 14 Dec 82 p 5

[Text] The Government on Monday appointed an expert working group to prepare a software plan for Doordarshan. It will examine the need for starting a multi-channel service and recommend a programme pattern for the same, taking into account the programme production facilities both existing as well as planned reports PTI.

The 8-member group to be headed by Dr P C Joshi, Director, Institute of Economic Growth, New Delhi, has been asked to prepare the plan taking into consideration the main objectives of television to assist in the process of socio-economic development of the country and to act as an effective medium for information, education and entertainment of the people.

The group, whose recommendations will help Government in evolving its communication policy, has been requested to submit its report within four months from its first meeting.

Briefing newsmen about the setting up of the working group, Mr S B Lal, secretary, Ministry of Information and Broadcasting said the working group would also review the national TV programme which was launched on a trial basis.

He said the working group's terms of reference did not include the technical aspect of the TV expansion in the country. It would assess the manpower requirement and training facilities and suggest measures for improvement from the point of software and evolve a system of evolution of the programmes and artist performance as well as a system for monitoring of the programmes, he said.

CSO: 5500/7052

PROBLEMS FACING INDIAN TELEVISION NETWORK NOTED

Bombay THE TIMES OF INDIA in English 3 Jan 83 p 2

[Article by N. L. Chowla]

[Text] Doordarshan's coverage of the Asiad has established that given the appropriate equipment, trained personnel and a responsive organisational support our television can achieve internationally accepted standards in programme quality. Even the much advanced television systems have commended its professionalism.

There is, obviously, need to look beyond the Asiad. In fact Doordarshan's tasks have become much more complex than the one it would have handled in normal expansion. At least three major developments have taken place.

First, television signal has spread with the installation of 20 low power transmitters which have been installed in different parts. Even though each of these transmitters has a range of only 10-15 km, the fact remains that the number of transmitters has doubled within a very short span and the population coverage through the TV signal now extends to over 20 per cent of the total population. And the TV audiences have been a great deal diversified.

Secondly, relevance of transmission through satellite and through microwave linkages at that extensive scale has been established, for the first time. And lastly colour TV has made an impressive beginning with 40 out of 41 transmitters having the capability of relaying the picture in colour.

Colour Sets

The exact number of colour TV sets now in use in the country is not known but the large arrivals under the "gift" scheme at some of the airports did create storage as well as dispersal problems. It is quite possible that the number would be a couple of lakhs, a good percentage in the interior parts not so far served by a regular TV centre.

In 1981 the number of TV sets in the country was 16.71 lakhs. By the end of 1982 the number could go up to 25 lakhs. Even the normal percentage in growth rate has varied between 30 and 40 in the last five years. A profile

of TV-owning household members indicates that a large number of viewers belong to the middle and upper middle classes in the monthly income of Rs. 751-Rs. 1500 and Rs. 1500-2000, and that most of them are educated and evenly balanced in the different age-groups.

The influx of new sets would not have altered these basic characteristics but a bulk of the new audiences would belong to the higher income brackets to have acquired colour TV sets and many of them may be living outside the metropolitan towns, served by the newly-installed 20 low-power transmitters.

This ownership pattern raises some fundamental questions in determining and devising software for television. There can be a genuine fear that the pressures from the more articulate sections of viewers and from advertisers may cause some serious deviations. Revenue from advertising on TV is substantial. It has already crossed the figure of Rs. 11 crores in 1981-82. The Asian Games coverage booked advertisements worth Rs. 1 crore.

In fact with the increasing investments in television the temptation to further augment the non-lapsable fund (from advertising earnings) will be greater. Such a temptation will need to be resisted if it conflicts with the social objectives of the medium.

#### Local Medium

It has been authoritatively stated that besides the feature films and programmes based on their excerpts, documentary films and programmes on education, agriculture, science and culture will be produced and projected in colour. This announcement needs to be adhered to strictly. The four colour OB vans and the 20 electronic news-gathering cameras should be utilised for fully exploiting the potential of the medium in the larger interest.

Our next concern is with the national service now being put out on all the 41 transmitters. TV is primarily a local medium. Its range is limited by the line of sight transmission. Therefore it is utilised for national linkages only for events of nationwide interest. For most of the time TV centres anywhere in the world originate programmes of relevance to audiences within their service range. In India we have a peculiar situation. As against 41 transmitting centres we have programme production facilities only at 11. The remaining transmitters can only re-transmit or relay programmes centrally produced.

Experience with Doordarshan's national service has been far from satisfactory. Apart from the linguistic and politicised objectives to the service it has to be said the service has been lacking in clear perceptions either of the medium or of the audiences. A mere mix of programme items from the north and the south is not what should constitute a national service. News telecasts have so far failed to have any claims to being called national.

There is no competitive TV channel. This fact alone places on the medial professionals and controllers a special responsibility. Professional autonomy that we have promised to the broadcast media will have to be made a reality and it will be meaningless unless it ensures initiative and creativity of the TV men and women. A clearer perception is a pre-requisite.

CSO: 5500/7055

INDIA

BRIEFS

COMMUNICATIONS PLANS--International subscribers dialling facilities will be available from India to at least 80 countries this year, the Communication Secretary, Mr S. K. Ghosh, told a Press conference in Calcutta on Saturday, reports PTI. At present such facilities were available from Calcutta, Delhi and Bombay to a number of exchanges in the United Kingdom. Mr Ghosh said a high-power committee, headed by the Communication Secretary, had been set up to chalk out a detailed programme for the observance of 1983 as the World Communication year. The secretaries of the Ministries of Home, Information and Broadcasting, Finance and other Ministries are members of the committee. The committee, Mr Ghosh said, would have its first seating in Delhi on January 13 to discuss certain specific projects to be taken up by the Government. UNI adds: "Store and Forward Traffic" popularly known as SFT system will soon be introduced for speedy movement of telegraphic messages, according to Mr Ghosh. He said the system designed indigenously was functioning "very satisfactorily" in Madras and Hyderabad. The delivery of telegrams which is at present taking more time, will be maintained on time and the unnecessary delay will be wiped out after the system was introduced, he said. [Text] [Calcutta THE STATESMAN in English 3 Jan 83 p 7]

CSO: 5500/7053

PAKISTAN

PLAN TO INSTALL TELEPHONES NEEDS HELP FROM PRIVATE SECTOR

Karachi JANG in Urdu 21 Dec 82 p 3

[Editorial: "Telephones and National Progress"]

[Text] According to a report, a program has been outlined to install 500,000 new telephones throughout the country during the sixth 5-year plan. This program will cost 11 billion rupees, to include mainly foreign exchange.

This is a very important and worthwhile plan provided it does not remain merely on paper and reaches completion within the specified period. How will this huge plan be completed? How will all the necessary resources be provided; how will speed and efficiency be created to complete the project within the specified time? These questions can only be answered when the officials concerned present a detailed plan of execution. We feel that such a huge program cannot be accomplished within a specified time unless the current administration of the telephone department is changed. How can a system be successful in providing 500,000 telephones when, over a period of 35 years, it installed only 350,000 telephones in the entire country? Some major changes in the focus of attention, methods of procedures and the structural system alone could help bring success.

As for the telephone, our view should change to such an extent that we no longer consider it a luxury but a necessity. In the present day, for speedy social and economic progress, we should consider it as important as other means of communications. Telecommunications plays an essential role in the progress of developing countries. Therefore, in those countries today, approval is not granted for any construction project, whether residential or industrial, as long as, along with drainage, water, gas and electricity, there is no provision for the installation of telephones. After achieving the target of having a telephone in every house, those countries are now aiming at having a telephone in every room of the house. In those countries, telecommunications acquired this importance because it is considered a very essential means of national progress, since, compared to air, sea and land communications, which include railways and roads, it is cheaper, faster and more effective. Whereas the use of a telephone enhances the work capabilities of a small businessman or factory owner, it also increases the efficiency of an individual and a family. Besides

financial savings, it saves many hours of work for an individual and the nation. Social, business and industrial activities increase tremendously and the march toward happy living progresses. Now, if we desire speedy progress for Pakistan, we should strive to provide a telephone in every house and regard this as a vital national target.

If we look at it from this viewpoint, the importance of accomplishing the program for installing 500,000 telephones becomes quite explicit. But we are afraid that the traditional slow speed of the government system will hinder the completion of this plan. It would be better if the telephone department were granted the status of a corporation so that it could make investments on a purely commercial basis. The Federal Investigation Commission, too, has recommended that this department be made a corporation. Telecommunications have acquired the status of a profitable and practicable industry. During the past year, the telephone department had a net income of 1.47 billion rupees and this year an income of 1.94 billion rupees is expected. If this institution had its status as a government department removed and if it were granted the status of an independent business corporation instead, it could mobilize capital on a large scale and soon accomplish the target of having a telephone in every house.

If for some reason the administration wishes to keep this institution as a government entity, it should have private sector do all the work, from setting up modern electronic exchanges to installing 500,000 telephones. In this regard, incentives should also be provided for foreign investments so that with the combination of foreign capital and local resources, the task of installing 500,000 telephones can be accomplished before the specified time. Foreign investors can bring along with them modern resources, technology and foreign exchanges. We have the skill and manpower in the form of 35,000 employees in the telephone department. This plan should also provide that the private sector, with the participation of foreign capital, establish an electronics plant in Pakistan so that modern electronics exchanges and other essential equipment can be produced in the country itself. If the administration does not wish to complete this plan entirely through the private sector, it should at least entrust the work of installing electronic exchanges and telephones in Karachi, Islamabad and three other provincial capitals to the private sector. In our opinion, this is the only way that 500,000 telephones can be provided to the citizens within a period of 5 years, perhaps sooner.

At present, 350,000 telephones are operating in the entire country, and more than 400,000 applications are awaiting approval. There are 105,000 telephones operating in Karachi, and 120,000 applications are awaiting approval there. Many people simply do not submit an application because they have no hope of approval. From a total of 500,000 telephones, 200,000 should be provided to Karachi, 100,000 to Lahore and the remaining 200,000 to other large cities. There should be room in the plan for a further increase of 100,000 telephones for smaller cities and towns, for which the Pakistani telephone industry can utilize its locally produced equipment. Modern electronic exchanges and other modern equipment will be used under this 5-year plan. Therefore, special programs should be

undertaken to train the staff of the telephone department. In our opinion, these are the fundamental, vital changes; without them, it will be difficult to provide 500,000 telephones within 5 years. We hope that the officials concerned understand their responsibilities toward the accomplishment of this vital plan and accept this challenge with full courage and determination. Investors from foreign countries and the local private sector can cooperate to offer their services for this task. By taking advantage of their services, this huge task can be accomplished soon.

9779  
CSO: 5500/4326

## AEROSPACE INSTITUTE TO BE SET UP

Karachi DAWN in English 16 Jan 83 p 8

### [Text]

An "aero-space institute," is to be set up by the Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) to cater to the expanding national space exploration programme by providing a cadre of trained young scientists, engineers and technicians.

Disclosing this at the inauguration of a two-day seminar on "The peaceful applications of space science and technology," the SUPARCO Chairman, Dr Salim Mehmud, said the new institute will conduct post-graduate courses in various aero-science space engineering disciplines.

Plans for the establishing of the institute were in the process of being finalised, and eventually it was intended to affiliate it with an engineering university so that it would be able to award a Masters' degree in aero-space engineering.

He pointed out that a research and development organisation engaged in a highly specialised field — such as space science and technology — could not function satisfactorily unless it had its own in-house training establishment.

At the moment, he continued, SUPARCO was conducting a routine six-month "orientation," course to meet its new recruit, but to meet its growing needs more elaborate facilities were required.

Under the expanding space research programme about 100 new trainees will have to be given ori-

tation courses in aero-space technology each year, and the proposed new institution will meet this need.

### Other plans

He also briefly outlined other aspects of SUPARCO's long-term programme to take Pakistan into the field of space research and exploration.

This includes:

- Construction of a solid fuel propellant plant (including liquid fuel manufacturing facilities).
- Rocket manufacturing facilities (including the design and building of a digital analog computer system by using indigenous materials).
- A mechanical workshop for heat treatment of rocket bodies.
- Environmental test facilities (including dynamic and static balancing).
- Static test firing benches (along with a wind tunnel).
- Sensors laboratories and integration workshop.
- Overall quality control and flight test ranges.

With the help of slides, Dr Salim Mehmud also explained the organisational set-up of SUPARCO and its past achievements.

Later, Dr Youssef El Gammal, Assistant Director for International and Industrial Affairs, Centre Nationale d'Etudes Spatiale (CNES), also gave a presentation about the space research programme initiated by the French aero-space firm since its creation about the decades ago. Dr Youssef El Gammal is currently here on a

one-week visit to Pakistan at the head of a three-member CNES delegation.

The two-day seminar, which was jointly organised by SUPARCO and CNES, was held at the Space and Atmosphere Research Centre near Karachi University.

A number of scientists, engineers and SUPARCO staff attended the seminar.—APP.

CSO: 5500/4718

PAKISTAN

FRENCH TEAM OF SPACE SPECIALISTS ARRIVES

Karachi DAWN in English 16 Jan 83 p 8

[Text] A three-member team of specialists from the French aerospace firm "centre Nationale d' Etudes Spatiale" (CNES) arrived in Karachi on Friday from Paris on a week-long visit during which it will explore the possibilities of Franco-Pakistan cooperation in the peaceful applications of space technology.

The team is headed by Egyptian-born scientist, Dr Yossef el-Gammal, Assistant Director, International and Industrial Affairs, CNES, while the other two members are Dr Jean-Luc Devynck Head, Department for Europe, Africa and the Middle East, and Mr Jean-Pascal Lefrance incharge for the Middle East.

The CNES team yesterday met Dr Salim Mehmud, Chairman of the Pakistan Space and Upper Atmosphere Research Commission (SPARCO) and other scientists concerned with the Pakistani space programme.

The CNES team will explain the areas in which French space technology can be of assistance to Pakistan in the development of its own space research programme

Among other things, the CNES team will discuss with SPARCO the possibility of Pakistan using the European Space Agency(ESA) Arianne launcher to place its national telecommunications satellite in earth orbit around the end of 1986.

CSO: 5500/4718

PAKISTAN

BRIEFS

DIGITAL ELECTRONIC TELEPHONE MANUFACTURED--Islamabad, Jan. 18: Pakistan has entered into the electronic telecommunications era by producing digital electronic telephone exchange and memorised electronic telephone at the Telephone Industry of Pakistan (Haripur). The digital type electronic telephone exchange and the electronic memorised electronic telephone have been designed and produced by the researchers and engineers of the Telephone Industry. The new devices were introduced by Mr Nazar Mohammad, General Manager, Telephone Industry of Pakistan, to a Press party which visited the factory today. The electronic digital exchange at present have 250 lines. Work was in progress to increase this capacity to 1,000 lines. The commercial production will start before the end of this year. Commenting on the new invention, the General Manager said it is a remarkable achievement in a short span of time". It was only due to the efficient and hard work by the engineers and research and development wing of the TIP, he remarked. He also paid tributes to the Director-General, Telegraph and Telephone Department, Brig Mansural Haq Malik for his support. [Text] [Karachi MORNING NEWS in English 19 Jan 83 p 3]

CSO: 5500/4718

LTC REPLACING OLD CABLES TO IMPROVE BUSHROD TELEPHONE SERVICE

Monrovia DAILY OBSERVER in English 20 Jan 83 pp 1, 11

[Article by Joseph Toe]

[Text] The Liberia Telecommunication Corporation (LTC), has begun replacing old cables in an effort to improve telephone services on Bushrod Island.

In an interview with the Daily Observer yesterday, the Managing Director of LTC, Mr. Charles B. Roberts, said the project will cost the corporation about \$200,000.

He said because there are a lot of businesses on Bushrod Island, "we have thought it necessary to make temporary arrangements to accommodate services in the area".

Mr. Roberts pointed out that bad primary cable connection made it difficult for the corporation to install new telephone services and repair some of the cables that were damaged.

Director Roberts disclosed that 900 jelly-filled cables will be installed to alleviate

some of the communication problems in the area.

He said the installation of those cables will be carried out from the People's Bridge to the Freeport, and would serve many customers on a very clear cable.

The first phase of the rehabilitation project, he said, would be to improve the telephone system in Paynesville and change the main transmission line that connects Sinkor and Paynesville.

The project, in its entire estimates, will cost the corporation about \$2.5m, he said. Mr. Roberts disclosed that the corporation collected \$8.9m from customers which he described as "very low".

He also revealed that private customers owed the corporation about \$7.5m.

He said names of 300 customers had been sent to the Justice Ministry "to enforce the collection of our

debts".

Commenting on assistance from the International Telecommunications Union (ITU), Mr. Roberts said LTC is a beneficiary of the various publications that are published by the ITU, adding "we have free access to channel those publications".

He noted that the ITU has sent a regional advisor to assess the existing telecommunication infrastructure in Liberia and make recommendations to the ITU for action.

Mr. Roberts said the advisor had made recommendation to the ITU to assist the LTC by sponsoring training programs for experts in specific areas.

He said if the recommendations are given favourable response, it will also assist the corporation towards improving the system to uphold more reliable communication in the country.

CSO: 5500/92

SOUTH AFRICA

BRIEFS

INTEGRATED CIRCUITS AGREEMENT--Commercial development of large-scale integrated circuits will be made possible for the first time in South Africa following an agreement just announced. AEI Henley Africa has signed an agreement with Marconi Electric Devices of Britain to market specialised telecommunication micro-chips in this country. Henley is a member of the GECSA Group which, in turn, is 50 percent owned by Barlow Rand and 50 percent by GEC of Britain. An essential part of the agreement is an arrangement whereby Henley will have access to advanced design and test facilities at Marconi's research centre at Wembley. This will enable the company to produce--for the first time in South Africa--large-scale integrated circuits for use in the telecommunications and computer industries. Henley's large-scale integration department is under the direction of Mr Vivian Patz, who designed a successful micro-chip soon to be introduced into locally-produced DSC10 exchanges. The micro-chips, made by Marconi, will halve the space required for the line cards in the PABX unit and reduce the cost. The new department, established in October last year, has already identified export opportunities. These are expected to take up about 70 percent of production. The market for integrated circuits and their components is estimated at R30 million a year, with a growth rate of eight to 15 percent this year. [Text] [Johannesburg THE STAR in English 19 Jan 83 p 17]

CSO: 5500/90

TANZANIA

TPTC SIGNS AGREEMENT WITH WEST GERMAN FIRM TO SUPPLY EQUIPMENT

Dar es Salaam DAILY NEWS in English 19 Jan 83 p 1

[Excerpt] The Tanzania Posts and Telecommunications Corporation (TPTC) has signed an agreement with the Lincas company of the West Germany under which the latter would supply 800 teleprinter machines valued at 15m/-.

The agreement was signed in Dar es Salaam yesterday by TPTC Acting Director General, Ndugu D. Kabyemera on behalf of the corporation and Mr Berhard Harms on behalf of his company.

A statement issued by TPTC said the machines to be delivered in Dar es Salaam in six months time would provide telex services to all applicants.

The statement said that funds for purchasing the machines have been drawn from World Bank loan of 233m/- which was granted to the corporation last year.

The remaining funds from the bank, the statement said, would be used for purchasing cables, microwave equipment, rural line and carrier equipment, civil construction materials and vehicles.

Other equipment to be purchased from the loan is power equipment, spares for telecommunications equipment and research equipment, the statement added. Part of the equipment would cater for fellowships and consultancy services and the improvement of digital services in Zanzibar.

CSO: 5500/91

ZAMBIA

BRIEFS

NEW TELEX LINK WITH NIGERIA --Zambia and Nigeria have established a telex link through a "hard-parched" London circuit ending years of lack of this vital communication contact between the two countries. Announcing this in Ndola yesterday, the Posts and Telecommunications Corporation (PTC) Director-General, Mr Phillemon Ngoma explained that subscribers from both ends will not necessarily seek an operator's assistance in London. A direct telephone link is expected to come into service in April this year, he said. Engineers are working on one or two technical problems before the service can finally be established. Due to colonial legacy, there have been no direct telex or telephone link between Eastern and Southern African countries with West Africa.  
[Excerpt] [Lusaka DAILY MAIL in English 21 Jan 83 p 7]

CSO: 5500/92

ZIMBABWE

BRIEFS

UN INFORMATION CENTER OPENED--The prime minister, Comrade Mugabe, has called for the establishment of a new world information order. Speaking on behalf of the prime minister, the minister of information posts and telecommunications, Comrade Shamuyariara, said the new order will report factually and faithfully developments throughout the world. The minister was opening a United Nations information center in Harare today and said the news interpreted by the Western mass media is often incorrect, distorted and in many instances blatantly untrue. Comrade Shamuyariara said often this is so carefully done that the news reporters themselves can no longer distinguish between the truth and lies. He said the Western mass media also seeks to cast doubts in the information arena regarding Zimbabwe's future plans, but the new center will assert the awakening awareness among the people throughout the world. [Text] [MB071238 Harare Domestic Service in English 1115 GMT 7 Feb 83]

CSO: 5500/93

INTERNATIONAL AFFAIRS

NORWAY'S PLAN TO REDUCE CONTRIBUTION IN TELE-X IRKS SWEDEN

Oslo AFTENPOSTEN in Norwegian 28 Jan 83 p 5

[Article by Morten Fyhn]

[Text] Stockholm, 27 Jan--The Willoch government's desire--as the Swedes see it--to reduce the Norwegian share in the Tele-X satellite from 26 to 10 percent has led to sharp reactions in Sweden. Industrial Affairs Minister Thage G. Peterson criticized the Norwegian attitude which he feels could have consequences on future cooperation, such as cooperation on the Nordsat project.

Cultural Affairs Minister Lars Roar Langslet said recently in Stockholm that a favorable financing agreement is a prerequisite for Norwegian participation with Finland and Sweden on the Tele-X. If Norway does not get a reasonable financing agreement, there is a danger that Norway will withdraw from the project.

Industrial Affairs Minister Peterson declined to say anything to AFTENPOSTEN about whether Sweden might be willing to accept a reduced Norwegian contribution. He stated that there was a draft agreement which the Willoch government approved following negotiations with the former Swedish government. Peterson thought it very strange that during his meeting with Prime Minister Olof Palme, Willoch supported a reduction in the Norwegian share.

Tele-X will cost 1.2 billion Swedish 1981 kronor. With the current exchange rates, the actual price has risen to around 1.5 billion, which means that Norway would have to come up with close to 400 million kronor. In return, according to the draft agreement, Norway would receive 26 percent of the industrial contracts involved in the project.

Because Norway now believes it will not get the same high benefits from Tele-X as it originally believed, it wants to reduce the Norwegian share. According to SVENSKA DAGBLADET, the Palme government will not accept 10 percent as the Norwegian share. It says it is shocking of Norway to make such a proposal.

The Swedish Social Democrats link Tele-X with further work on the much more extensive Nordsat project. If Norway eventually withdraws from Tele-X there is a great danger that the Swedes will pull out of Nordsat. That would make a Nordic TV cooperation very unlikely.

Thage G. Peterson hopes Tele-X will be carried out with Norwegian participation. It would mean a lot for Nordic cooperation, he says.

From what AFTENPOSTEN has been able to learn, Norwegians deny that a 26 percent share was ever approved. It is what the Swedes wanted. But it has been suggested that roughly 10 percent would be a natural point of departure which should lead to a resolution of the differences. However, negotiations are now going on and it is not just in Norway that people are unwilling to say how big a share the government might go along with. It is AFTENPOSTEN's understanding that a solution above 15 percent would not be acceptable--and even 15 percent is regarded as being too high.

6578  
CSO: 5500/2600

CYPRUS

'REUTERS' INAUGURATES DIRECT SATELLITE REPORTING LINK

NC270820 Nicosia CYPRUS MAIL in English 27 Jan 83 p 1

[Text] Patrick Worsnip, head of REUTERS Beirut bureau with responsibility for the Middle East region, including Cyprus, left the island yesterday after a six-day working visit to inspect the operation of the international news agency's Nicosia bureau.

During his stay, Worsnip inaugurated a direct satellite reporting link, installed by the Cyprus Telecommunications Authority, CYTA, at the REUTERS office run by Middle East media operations in Nicosia. REUTERS stories filed from Cyprus will now be fed simultaneously to Beirut and to computers of the world service headquarters in London for processing, instead of by telex as previously.

Worsnip, accompanied by the resident REUTERS Cyprus correspondent, former CYPRUS MAIL editor Thomas O'Dwyer, interviewed Kliridhis and Dr Lissaridhis, who are standing as presidential election candidates, and AKEL leader Papaioannou.

Because of the short notice, Worsnip was unable to see President Kiprianou as hoped, but this interview is being arranged for O'Dwyer to complete the series in REUTERS' preelection programme.

Worsnip also saw press representatives from the UN, public information office, embassy and newspaper offices for background briefings on Cyprus. He has left for Damascus to seek an interview with President al-Asad before returning to the Beirut bureau.

CSO: 5500/2597

CYPRUS

DIKO-AKEL ALLIANCE ACCUSED OF USING ILLEGAL RADIO STATION

Paphos TV Station

Nicosia I SIMERINI in Greek 7 Jan 83 p 1

[Text] The alliance now has acquired an illegal television station in Paphos. According to verified information from I SIMERINI's correspondent in Paphos, this illegal TV station has been operating for quite a few days now.

According to the same information, the alliance's TV station covers a ten-mile radius and broadcasts on channel five. The hours at which programs are shown are irregular, but only DIKO [Democratic Party] cadres and adherents know them because usually speeches and excerpts from speeches of President Kyprianou are broadcast.

Special antennae have been placed at the new Paphos stadium for rebroadcasting the illegal TV station's programs. In order to watch the programs, TV viewers must place their TV antennae perpendicularly, thus using the Troodos antenna. By exception, on 26 December 1982, from 1000 in the morning until 2200 in the evening, a film from the "Eurovision" competition was shown.

Police Investigation Invited

Nicosia I SIMERINI in Greek 9 Jan 83 p 12

[Text] Paphos, 8 January (I SIMERINI offices)--On 8 January, the I SIMERINI correspondent in Paphos was called by the TAE [Criminal Investigation Department] director and the Paphos Police chief to confirm the communication of information relating to the alliance operating a TV station in Paphos.

Our correspondent repeated the information our newspaper published on 7 January and urged the police to go out into the city and get testimony from the people who watched the programs.

The police stated that they will begin investigations to locate the illegal station. As we are informed, the station is installed in a private home near Paphos stadium. The station's antennae look towards the stadium and are not in it, as we mistakenly wrote. Broadcasting is on channel five.

9247

CSO: 3521/2594

DENMARK

PAPER COMMENTS ON RECENT MOVES TO END BROADCAST MONOPOLY

Copenhagen BERLINGSKE TIDENDE in Danish 19 Jan 83 p 8

[Editorial: "Good-bye to the Monopoly"]

[Text] The state monopoly on broadcasting by radio and television in Denmark is today an anachronism. The technological development has been undermining the monopoly for a long time, and the attempts in progress to produce TV and radio on the local level make the hitherto politically determined sole right to the air a formality. The consequence may only be to take the last step now and thus open up the possibility of establishing a TV channel Channel Two outside the Danish Broadcasting Corporation.

No time must be lost in taking this step, lest an alternative channel will manifest itself on unfavorable conditions. A media policy of procrastination as a result of the stubborn protection on the part of the Social Democratic Party of the monopoly has delayed the necessary initiatives and prevented useful experience from being gained at a time when the economic conditions were better. Many years have thus been lost while the Nordsat project filled the imagination and long after its actual failure remained a cultural policy conjuring trick. It, therefore, is the eleventh hour for a privately managed Danish TV channel Channel Two partly financed by advertising to secure its basis and conditions of development before the European satellite programs will completely seize the attention of Danish viewers. The slow rate of progress in the decision-making process may easily prove to be the greatest danger of losing Danish culture.

Opponents of a TV channel Channel Two have till the last doubted the existence of resources and talents to produce qualified TV outside the Danish Broadcasting Corporation, and the claim has been made that the licensed listeners are already heavily taxed. To this should be added that the Danes have so far been paying the world's highest license for an administration which, with labyrinthine growing pains, obviously has not benefited the product, and for a program policy which, with the blessing of the staff, calls for free competition. All polls indicate that the viewers are willing to pay for a second choice, and that the combination of the payment of license and advertising money is a realistic basis.

The stated aversion on the part of the Social Democratic Party to advertising, in this connection, verges on a double standard of morality after BERLINGSKE TIDENDE's Focus series has now shown the lenient attitude which marks the present regulations of the administration of the Danish Broadcasting Corporation. As for the practical possibilities of a TV channel Channel Two, inspiration may be drawn from, among other places, the new British TV channel Channel Four, which with a minimum staff, bases its programs on productions by contract. One of the consequences of this has been a new growth within the film making industry, which, just as in Denmark, has suffered under several years of stagnation.

The government wants the monopoly to be terminated. The management of the Danish Broadcasting Corporation wants it. And not least the population wants it. There is only one unanswered question. What are they waiting for.

7262  
CSO: 5500/2592

DENMARK

NINE COPENHAGEN NEWSPAPERS' TV CHANNEL ENDS STATE TV MONOPOLY

Helsinki HUVUDSTADSBLADET in Swedish 28 Jan 83 p 14

[Report by HUVUDSTADSBLADET correspondent Sigyn Alenius]

[Text] Copenhagen--Copenhagen's nine daily papers are planning to break the TV monopoly with a news and entertainment TV that will be financed by subscriptions like an ordinary newspaper. There will be no advertising and announcements. The papers are now waiting for a political green light for their project.

Breaking the state monopoly in the ether has long been the aim of the non-socialist group of parties. Denmark has only one TV program, and it operates under state management. The non-socialists' view is that competition would improve the programs.

The newspapers have now turned in an application for a wave length and broadcasting rights for their joint TV program. The four government parties take a positive attitude, but have not got a majority. For that it would take the votes of the Progressive Party and the Radical Liberal Party in addition. The Progressive Party says yes, but the little Center Radical Liberal Party is still undecided.

The newspapers offer the viewers a program that would run all the waking hours of the day. The main emphasis would be put on news, according to Director Steffen Gullman of the newspaper POLITIKEN, who is one of the driving forces behind the project. But besides that the newspapers' TV will broadcast entertainment, films, cultural programs, sports, etc. This TV will not be a substitute for the daily paper, but rather a supplement to it, Gullman says.

The subscription price will be something less than 50 marks a month, to which is added a receiving set, a so-called "decoder," which costs about 750 marks. The newspapers' TV entertainment is economically more advantageous than, e.g., video, which costs nearly 20 marks in rent for a single film. Here one can get several films during the month for the subscription price, which is not even 50 marks.

The newspapers' project has nothing to do with ordinary local TV, which is also being prepared for in Denmark. Local TV will not operate under private

management like the newspapers' TV, but under a combination municipal and state [i.e., national] management, and go out over the normal network. The Ministry of Cultural Affairs has promised to finance an experiment with local TV in a number of municipalities on the condition that the municipalities themselves repay 50 percent of the costs.

8815  
CSO: 5500/2605

FEDERAL REPUBLIC OF GERMANY

BUNDESPOST SEES LONG-TERM SUCCESS FOR TELETEX

Frankfurt/Main FRANKFURTER ZEITUNG/BLICK DURCH DIE WIRTSCHAFT in German 21 Jan 81  
p 1

[Article by Ulrich Schulze]

[Text] 20 Jan--Teletex has been tested in the FRG for 5 years now, and for the last 2 1/2 years, since 1 June 1980, it has been given an official and public trial in the cities of Berlin and Duesseldorf/Neuss. This testing, originally scheduled for 1 year, then extended to 1983, includes a scientific examination of the system. In Berlin the number of subscribers has neared its maximum at 2,000 private households and 982 commercial users. And in Duesseldorf, the Bundespost has signed up 1,621 private and 633 commercial subscribers so far. In his "Handbook of the New Media," Dietrich Ratzke writes the following concerning this: "Once more the perception has proved to be correct that media which are ready for the market but which are only ancillary do not capture the market in an explosive fashion, but establish themselves over a relatively long time by way of slowly increasing utilization rates."

By January, 286,666 teletex pages had been stored in the computer of the Bundespost in Berlin, and in Duesseldorf 263,250 such pages had been stored. Most of the suppliers of information or services are represented in these two test areas; in Berlin the Bundespost shows 1,491, and in Duesseldorf 1,528. So far, information has been requested more than 1.3 million times, and the number of orders placed via teletex run in the thousands.

Based on the data collected by the Bundespost, teletex will be successful. A certain period of slow growth is expected, but according to the Bundespost the following considerations should be borne in mind: In the FRG, almost 23 million primary telephone connections and around 22 million television sets are already installed, and the computers for the acceptance, storage, and output of information will be installed in the coming years. This means, according to the Bundespost: There are terminals already in almost every household, because of the telephone network the transmission channel now exists, and there is no danger of an overloading of the telephone network. It says that the rise in the level of telecommunications will amount to about 4 percent in the coming years. Once all 31 "teletex exchanges" are installed, communicating will be done via the local network. The Bundespost is counting on another factor: While the teletex is being used, the subscriber can neither receive nor make telephone calls himself--if he uses the teletex service often, he will be requesting a second telephone.

The equipment industry is figuring on something similar. It has been gearing up to manufacture color television sets in the coming years which will be suited also for the new communication media (besides teletex this includes also videotex, which is beamed via the television signal and which has a display picture corresponding to that of teletex, although its capacity and scope of utilization are distinctly limited). Moreover, in the coming years there is to be a supply of such auxiliary devices as the modem, expandable printers, diskette buffer stores, entry keyboards, and monitors. Production has been (and is) still restrained. But the industry's hopes are focused on the future. Already the Bundespost has ordered 400,000 modems from five different firms.

The Bundespost says that teletex must be a service branch which "supports itself." That means: It will not be subsidized (even though the capital expenditures to be incurred by the Bundespost up to 1986 are relatively high, amounting to about DM 500 million). On the other hand, this new communication technology will succeed only if--in addition to being efficient--it also remains affordable. This has to do with both charges and costs. For the subscriber, the user of teletex, the Bundespost wants to hold down the expenditures, and the equipment industry has begun to manufacture extremely inexpensive equipment for teletex. Thus, besides the color television sets an entry keyboard has been developed by now which is equipped with all the important functions but costs no more than DM 300. For teletex subscribers who do not use the system daily, or who at least do not send information daily to another subscriber, such a keyboard is entirely adequate.

International pressure not only has spurred on the equipment industry in the FRG to make exceptional efforts, but also has had an influence on prices. In line with the thinking concerning this market, in the FRG a series of devices for teletex will be developed which will all function according to a uniform basic technology, but which will differ in details, and thus they will be suited to the differing needs of the users. The supplier of information will make available a relatively large number of technical features for the purpose of economizing on line charges and storage capacity; the user of teletex will be able to compare outlays for these devices with the services offered and with his requirements. Such characteristic behavior has been taken into account by the equipment industry.

In the future, the charges for teletex will be collected automatically by the Bundespost along with the telephone bills. In doing this, settlement is made also with respect to the "fees" for information which the subscriber must pay to an information supplier in return for the particular service. During the testing phase in 1981, the Bundespost paid out about DM 50,000 in fees to the information suppliers. In this connection, until September 1983 a side fee of only 99 pfennigs can be charged. In the future this will go up to a maximum of DM 9.99.

What is likely to happen if the technical wonder at Ulm, along with all its "children," is a failure? Who will guarantee data security? The firm which is building the teletex exchanges will not make such a guarantee. The Bundespost? Section leader Danke, who is responsible for teletex at the Federal Ministry for Post and Telecommunications, says mysteriously but also unmistakably: "You can assume that we have made provisions for this eventuality."

FEDERAL REPUBLIC OF GERMANY

BRIEFS

SIEMENS-PHILIPS COOPERATION--Munich. The two largest electrical enterprises in Europe, N.V. Philips Gloeilampenfabrieken, Eindhoven, and Siemens AG., Munich/Berlin, are planning to cooperate in future long-term research and development. They have signed a framework agreement to collaborate primarily in the area of basic research and development. Market-oriented product development is specifically excluded. "This is an important step in the development policy of the two largest European electrical enterprises," according to a spokesman for Siemens. He said that it is, however, not in response to recent expansion efforts of the French Thomson-Brandt-Group. Rather, through this marriage the two European electrical concerns want to strengthen their ability to compete with the Japanese and Americans in the field of microelectronics. At this time, cooperation between Philips and Siemens will primarily focus on certain aspects of new semiconductor materials, foundations of microelectronics, questions relating to submicro technologies, but also computer-aided development (CAD) and electronic speech recognition. Expansion into other areas would be possible at a later stage. Siemens emphasizes that this is a marriage of partners with equal rights. For the time being, about 50 scientists are covered by the agreement in the central research and development laboratories of each firm. This number could increase considerably as subject matters are broadened and collaboration is deepened. Text Duesseldorf HANDELSBLATT in German  
11/12 Dec 82 p 17 7821

CSO: 5500/2537

FINLAND

REVOLUTION IN TELECOMMUNICATIONS IS LEGISLATIVE CHALLENGE

Helsinki HUFVUDSTADSBLADET in Swedish 23 Jan 83 p 14

[Text] The rapid technical development in the electronic mass media has placed the legislators in an awkward situation. Laws and regulations age quickly and it is hard to agree on what kind of control society should impose. The question concerns whether the new local electronic mass media should be given the same freedom as newspapers and magazines or whether all radio and TV activity should be controlled by the authorities. New laws are needed; that much is agreed.

Finnish law, like that of many other European countries, knows no monopoly for radio and TV. For radio broadcasting, on the other hand, it is necessary to have a license from the council of state, and so far the council of state has not licensed anybody besides Oy Yleisradio Ab.

This exclusive right is quite justified, since the radio waves are a limited "raw material." At the international level it has been found necessary to allot the radio waves, and this has naturally meant that on the national plane it is impossible to give free play for radio and TV transmissions.

But technical advances have changed the situation. Now it is possible to distribute TV programs efficiently and relatively cheaply by cable. Programs can be received from abroad either directly or by satellite and with relatively simple antennas, and then forwarded to the households via cable networks.

In October 1981 the Perttunen committee presented its report on cable TV to Veiko Saarto (People's Democratic League), then minister of communications. In the ministry a bill was quickly worked out that was based entirely on the report. But the bill got no further than the government's night school, where it was stopped by the Swedish People's Party and the Center Party.

Politically the situation is that the Left wants a law following the committee's model, while the non-socialists are against that or are undecided.

Concession Model

The committee's proposal is based on the concession model; i.e., permission of the council of state would be required to engage in the cable TV business. The

intention, however, is that any Finn or any Finnish organization shall have a right to conduct cable TV transmissions provided certain conditions are met. One must have the necessary technical capacity and a stable economy. If the conditions are met the concession will be given automatically. According to the report the law would apply to cable TV systems with over 400 subscribers and cable radio with over 500 receivers connected.

In regard to programs the bill provides that they must not be brutal, indecent, or harmful to mental health. It is also required that 40 percent of the programs be domestic and that commercials not exceed 7.5 percent.

As for antenna companies, such firms with over 1,500 connections should have the council of state's permission. On this point Ole Norrback, the Swedish People's Party member of the committee, turned in a reservation. He maintains that the antenna companies need no regulation at this stage.

#### Wrong Point of Departure

The Perttunen committee's report has been subjected to severe criticism by practically all the bodies to which it was submitted for consideration. It has been asserted that the bill is very defective in structure. Moreover, the demand for 40 percent domestic programs and the low percentage of commercials have been called unreasonable.

One of those who criticized the report harshly is Prof Martti Tiuri of the Technical Institute. He is professor of radio engineering.

"The committee started from a completely wrong basis when it put cable TV on a par with ordinary TV transmissions," he says. "When the committee says that regulation of radio broadcasting was necessary because of its importance to society that is wrong. The broadcasting business was regulated because there were not enough channels to give the transmitting free play."

"That is also why in the ether media it was impossible to realize the principle of the right of freedom of speech," he says, and cites the 1961 opinion of the Constitutional Committee on the question.

In that opinion it is stated that although the constitution guarantees all citizens the right of free speech, for technical reasons that cannot be effected on radio and TV.

"In cable TV these technical limitations no longer exist, and therefore it is not necessary to limit the right of free speech."

"If the social significance is to be used as motivation for a regulation, then the same motivation can be used for regulating the daily press," says Prof. Tiuri.

#### Hard To Keep Up

According to Tiuri the committee has heard experts but not listened to them.

"They have not studied up on the cable TV specialty and pondered the possibilities that the system offers."

"On the technical plane extensive changes are taking place all the time, and the decision-makers are not keeping up.

"The same can be said of the daily press. Technical and scientific development is a part of our culture. In the cultural pages of the newspapers other cultural questions are dealt with well and in detail, but there is no interest in technology as a form of culture."

Prof Tiuri also deplores the fact that a regulative legislation is making research activity in the field impossible.

#### Owners and Program Purveyors

Heikki Saraste, managing director of the Helsinki cable TV, also criticizes the whole make-up of the bill. The drafters of the bill did not consider at all the difference between the owner of the cable network and the person or firm that is responsible for the programs. In principle there is the same difference here as, in the case of newspapers, between the publisher of the newspaper and the owner of the press.

"For one thing we need a law that applies to the owner of the cable network. He should place his sending capacity at the disposal of all interested information producers on equal terms. Technical standards for the network should also be set in that law," says Director Saraste.

"Then the suppliers of programs or information are a different matter entirely. For their part a system of responsibility should be created; i.e., a responsible program chief with the same responsibility as the editor in chief of a newspaper. This part of the law should also include provisions about the right to reply, as well as standards concerning brutal, indecent, and mentally harmful programs."

In regard to HTV it may be noted, e.g., that the firm places its network at the disposal of other program purveyors. Lease of the channel for an hour at this year's rate costs 10,000 marks. This possibility has been made use of by several firms that distributed sports programs, for example, and also by various organizations such as the Finnish Red Cross.

#### Good Point of Departure

Ole Norrback (Swedish People's Party), member of parliament, who sits on the Perttunen committee, insists for his part that the report offers a good point of departure for legislation on cable TV.

"Legislation is needed in some form, and the Perttunen committee's bill is not bad.

"But the law can wait," he says. "For the time being the cable TV transmissions are working well and no problems have turned up that would require quick passage of a law. But when the distribution of satellite transmissions becomes a part of the business on a larger scale a law will be needed. We can hardly allow the distribution of any program regardless. There must be someone who bears the responsibility.

"It is not so much the distribution that must be regulated, but rather the programs offered. No control is needed for bringing in official programs of neighboring countries. Hardly for official transmissions of other European states, either. But private satellite transmissions, on the other hand, must be supervised," says Ole Norrback.

Channel 3?

As for the granting of permits for cable TV transmissions, Norrback emphasizes strongly that they must be granted automatically when the conditions are met.

"The permits must not be dependent on the whim of different governments," he points out.

In a number of statements about the new electronic mass media it has often been pointed out that Channel 3 is becoming superfluous since the TV offerings from Sweden have increased and since the local cable TV firms give Swedish-language service.

"Today we also read DAGENS NYHETER, SVENSKA DAGBLADET, and other newspapers from Sweden, but we still consider that we have a need for HUVUDSTADSBLADET and other Finland-Swedish newspapers," says Ole Norrback.

8815  
CSO: 5500/2604

FINLAND

TAMPERE GETTING ONE OF WORLD'S FIRST 'TWO-WAY' CABLE TV NETS

Helsinki HUFVUDSTADSBLADET in Swedish 28 Jan 83 p 14

[Text] It appears that Tampere residents will be the first in Europe that can sit at home in front of their TV and not only receive programs but also send their wishes back over a cable TV network.

A contract on a two-way cable system was signed yesterday by Tampereen Tietoverkko Oy and Salora Oy in Tampere.

The system will first start operating as a one-way system with TV programs--precisely in the same way as Helsinki Cable TV--next fall. Two-way communication will start early in 1985.

Opinion polls and market studies direct to the home are a part of what can be done via cable TV with a two-way system. The patrons can also make their bank payments, e.g., direct from home. Certain forms of security service can be offered--fire and burglary alarms, etc.

The Tampere resident can use his old TV, but will buy a "home terminal"; i.e., a box as big as the Helsinki telephone directory, and also a remote control apparatus similar to those used for TV sets. The control apparatus has the numbers from 1 to 10 and control and channel buttons for TV.

In today's money these supplementary apparatus cost a little less than 2,000 marks. In addition, of course, there are charges that depend on how many films and how much other service you "order" on the TV with your control button.

8,000 Receivers in 1985?

The business is the first of its kind in Europe and is based in part on technology that has been developed in Salora Oy.

The firm's net worth is 10 million marks, and that includes first of all about 8,000 receiving sets that it is hoped to sell in Tampere by the end of 1985. Preliminary figures have been worked out up to 1990 at a total of about 30 million marks in today's money (22,000 sets). But here everything depends on how well the marketing of the new system succeeds.

"The marketing must be quite effective and must be combined with an attractive payment scheme," says the project chief, Matti Arjanne, of Tampereen Tietoverkko Oy. He also tells HUFVUDSTADSBLADET that the company's business will be split into two parts: one part which sells cable TV programs at a monthly rate and another pay TV part in which the customer pays only for the films he sees.

#### Contact With His Bank Account

Tampereen Tietoverkko Oy is owned, 25 percent each, by the municipality of Tampere, the Tampere telephone company, and Tampereen Kirjapaino Oy. The remaining 25 percent is divided among about 30 shareholders. The company was founded back in 1973 but has only now gotten started in earnest with its business.

In addition to furnishing TV films, Tietoverkko will try to interest banks, marketing institutes, and others in making use of the possibility of communicating with a large number of people directly in their homes.

If one can get in touch with the computer at ones bank directly from home and get information about how much one has in ones bank account, that naturally makes it necessary for the bank, in turn, to program its computer so that it is not possible to go in and see what other people have in their bank accounts. A watertight system, in other words.

The cables that are already in the ground have not got enough capacity for cable TV. That requires coaxial cables. Such cables have already been laid in the west center of Tampere. Now in 10 years' time they will be expanded to cover the whole city.

There are already cable TV viewers in about 13 million households in Europe. On the other hand, two-way cable TV has yet to be installed anywhere--even in the United States.

8815  
CSO: 5500/2604

FINLAND

GOVERNMENT BROADCAST MONOPOLY THREATENED BY CABLE TV

Helsinki HUFVUDSTADSBLADET in Swedish 23 Jan 83 p 14

[Excerpt] Technical development in the electronic mass media is making the existing state monopoly system superfluous. The cable TV business, which has gotten under way in earnest here in Finland, too, is in a fair way to develop into an important local mass medium which creates wholly new dimensions and development trends within our mass media structure.

In Finland today there are some 60-odd different cable TV experiments under way. So far only one real cable TV company has been founded, namely HTV in Helsinki. In the other cases it is more a matter of central antenna systems and, in many cases, of pottering around with local transmissions in some form.

Satellite reception and distribution via cable TV take place in Helsinki, Turku, and Rovaniemi.

Among the satellite systems a distinction should be made between distribution satellites and broadcasting satellites. Distribution satellites, which are of lower power, are used chiefly to transmit information or programs to some specific receiver. They require quite large receiving antennas. And in that case it is natural that, e.g., a cable TV company or some other interested party builds the antenna and forwards the program via the cable network.

Broadcasting satellites may be compared to a powerful broadcasting station at an altitude of 36,000 km. Theoretically all interested parties can receive the transmissions.

Distribution satellites are already in use. Broadcasting satellites are expected to come into use about 1986, when the FRG, France, and England start such transmissions.

After that, recording programs and sending them to the receivers will represent a quite insignificant part of the cost of the whole enterprise.

Rapid Growth

At present the growth of cable TV is markedly rapid all over the western world. In the Helsinki region HTV has about 78,000 subscribers, but the demand is great

and there are plans to expand the net beyond Helsinki to Hagalund and elsewhere.

According to a viewer survey made by Finnpanel Oy between 16 August and 16 October 1982, 42.6 percent of the viewers watched HTV, 38.9 percent TV 1, and 18.4 percent TV 2.

According to British reports from Mackintosh International, in 1980 13 million of the 112 million West European households were connected with a cable TV system. By the end of the 1980's the number is expected to rise to 35 million.

#### The Network Costs

In the cable TV business there are reasons to distinguish between the entity that owns the cable TV network and the one that is responsible for the programming. In principle there is the same difference here as in the printing business, where the publisher of a newspaper and the owner of the press may be two entirely separate persons or firms.

In Finland it is usual for the cable network to be put in place by local telephone companies or by the post and telecommunications administration. The post office has its own network in Rovaniemi, Lappeenranta, and Varkaus. The networks are being expanded all the time, and within the post office there are plans to expand the network so that in 10 years there will be connections to 300,000 households.

In cable TV it is precisely the installation of the network that is most costly.

It is most expensive in densely settled areas where the cables must be laid underground. In thinly settled areas where the cable can be strung in the air the long distances contribute to making the costs high.

Digging up the street, however, is the most costly part of the whole operation. In the Helsinki area it is estimated that it costs 400 marks per meter to dig a trench in the street. This represents 90 percent of the costs of constructing a TV network there. If the cable network can be included in the municipal technical planning and the cables are laid in connection with other works, it naturally becomes much more reasonable.

To a certain extent it can be said that Finland is in the forefront of the development in Europe. HTV with its 78,000 subscribers can be considered as a big company even from the international point of view. There has been the greatest expansion in the United States, where there are already over 5,000 companies in the business.

8815  
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FIRST FIBER OPTICS LINK IN PARIS AREA OPERATIONAL

Paris ELECTRONIQUE ACTUALITES in French 14 Jan 83 pp 1, 10

[Article by D. Levy]

[Excerpt] The optical fiber link that connects the Paris telephone exchanges Poncelet and Saint-Lambert via the Tuilleries exchange, is the first operational optical link of the French telephone network. It will be integrated into the Paris network next May.

While visiting the site on 7 January, Mr Mexandeau, minister of PTT, stressed the effort being made as part of the vast program aimed at installing optical fibers throughout the country within 15 years. An investment of one billion francs will be approved in this area for 1983 alone.

Built by LTT (Ligne Telephonique et Telegraphique), a Thomson-CSF subsidiary, the Poncelet-Saint-Lambert link is not the first optical link installed in Paris. It was preceded in 1980 by the Tuilleries-Philippe-Auguste link, also supplied by LTT. But while the 1980 connection was only experimental, the current one is fully operational.

The 9.2 km-long Poncelet-Saint-Lambert link consists of a 70-fiber optical cable composed of seven bundles (grooved cylindrical elements), each of which includes 10 optical fibers with an external diameter of 125 microns. A first section of cable is laid between the Poncelet and Tuilleries exchanges over a distance of 3700 meters. A second section is installed between the Tuilleries and Saint-Lambert exchanges over a distance of 5500 meters. This link, which will be hooked up to the Paris telephone network in May, will allow the cable, whose external diameter is 22 mm, to carry 16,800 telephone channels.

Compared to a conventional metal cable system, the Poncelet-Saint-Lambert optical link offers definite advantages. For instance, with optical technology, the same number of telephone channels that can be carried by a single cable with a diameter of 22 mm, require two cables with diameters larger than 120 mm in the conventional way. Moreover, while the latter needs four amplifier stations (with 500 amplifiers per station), the former makes it possible to eliminate the amplifier stations (over distances of up to 20 km). The cost of its construction is estimated at 7 million francs.

It should also be noted that the optical fiber cable at the Tuilleries exchange offers the possibility of splicing part or all of the bundles for connecting terminals, as well as for branching to other lines. Prototype equipment of 34 Mbits/s (supplied by CIT-Alcatel) will be tested on optical fibers at the Tuilleries exchange. This is the first optical fiber prototype equipment manufactured in France, and constitutes the first order from the French PTT.

#### Consultations for Cable Networks

The Poncelet-Saint-Lambert link is the first step in an ambitious development and installation program for optical fiber transmission systems. For urban connections, PTT plans to order 5000 km during this year for use in the Paris region alone. An equivalent amount is planned--assuming that some problems can be solved on the Le Mans-La Fleche cable--to serve for inter-urban and inter-exchange links. This amounts to about 10,000 km of cable ordered in 1983. In this area, three manufacturers have earned "field qualification" after having built experimental links; they are LTT, CLTO (CGE-French General Electric Company), and SAT (Societe Anonyme de Telecommunications).

In parallel with this program to equip the telephone network with optical fibers, PTT is getting ready to begin the construction of videocommunications cable networks on the basis of planned figures (1.4 million households connected between 1983 and 1985). On 7 January, the PTT minister disclosed that industrial consultations will begin by the end of this month, leading to first orders next autumn. Technology will not be specified in these consultations, the initiative being left to builders so as to determine their industrial capabilities and the price differences between optical fiber systems and conventional cable systems. However, and even though it appears that the first phase is oriented toward hybrid systems (with coaxial cable main lines and distribution through optical fibers), the goal is known to be the most rapid possible shift to optical systems.

This year, 250,000 Minitels will be effectively in service in France.

11,023  
CSO: 5500/2596

FRANCE

THOMSON SUBSIDIARY DEVELOPS NEW TYPES OF CABLES

Paris ELECTRONIQUE ACTUALITES in French 14 Jan 83 p 22

[Article by JPF]

[Excerpts] Although technologic revolutions rarely occur in the fabrication of wires and cables, Cabeltel, a Thomson subsidiary in the communications branch, is experiencing growth in the testing and development of new technologies, such as optical cables, either of free geometry in which the fiber can move, or of packed geometry; self-extinguishing insulated cables; radiating coaxial cables; and cables with high EMI (electromagnetic interference) immunity.

Expansion of Optical Cables

The company started rather modestly in the fabrication of optical cables, and expects to sell 50-60 m of cable per subscriber for the Biarritz cable installation (2000 subscribers).

This activity represents only a few percent of its turnover, which was 180 MF in 1981, and about 200 MF in 1982, with 560 employees. The 1982 investments amounted to 10 MF. The company obtains 24 percent of its turnover from exportation, two-thirds of which is achieved indirectly, most often through the intermediary of the group. Cabeltel stands behind Filotex, but with a more varied product line.

Created in 1971 as a Thomson-Brandt unit to manufacture insulated wires and cables, it became a subsidiary of Thomson-CSF and took the name of Cabeltel in 1979, with the objective of studying and manufacturing precision wires and cables known as low signal cables for telephony and data signal transmission.

But given the development of the data processing field, the company has been studying special wires and cables for use under extreme conditions, for instance.

### Anti-EMI Cables

But the company also undertook the development of new cable ideas, in particular high EMI cables and radiating coaxial cables. The latter appear to have a paradoxical name; in fact, they are aptly named, since they have the property of providing a given radiation in radiocommunications. When used in tunnels, they can continue to provide radio transmission, for instance.

High EMI cables will be of conventional design, but will be shielded with mu-metal among others, in order to provide immunity in the low frequency band. The company does not appear convinced of the quality of absorbing ferrites manufactured by LEAD, which we might remember are more efficient beginning at several hundred kilohertz and beyond.

In avionics, the company is developing cables insulated with kapton and silvered copper for temperature resistance, but is not yet in a position to sell cables clad with ETAV 300, perfected a few months ago by the copper and aluminum division of Thomson-Brandt. The reasons are a barely started product promotion on one hand, and the present lack of standardization support on the other.

In optical cables, Cabeltel has already shown its products at the last Salon du Bourget, and will establish a video connection between a mobile color camera and a relay truck at the next Montreux exhibit. We should point out that in addition to the cable structures already mentioned, a composite structure containing copper and optical fibers together, will be developed by the company.

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ITALY

ANTI-TRUST LAWS FOR PRIVATE RADIO-TV ADVOCATED

Rome IL TEMPO in Italian 23 Dec 82 p 9

Article by Giampiero Gamaleri

Text "When an important and sensitive sector of society, such as private radio and television, is left unregulated and undisciplined, the damage done becomes more and more serious economically, socially and culturally." These are the key words in the speech delivered by the minister of posts and telecommunications, Remo Gaspari, at the study conference sponsored in Rome by Federcultura, CORALLO (Consortium of Local Free Radio and Television Stations) and ALIAS (Associated Free Stations), in which about a hundred operators participated, particularly operators of local Christian-oriented radio stations which are deeply a part of the social fabric of the localities in which they operate. The minister's speech went far beyond just a welcome for the occasion and was presented as a broad assessment of the political situation in the area of telecommunications.

Gaspari expressed as clearly as possible his opposition to the mentality of procrastination. He demonstrated such opposition on 23 December 1981 when he submitted a draft law with the relative cooperation of all political parties, and open to modifications and contributions, in the conviction "that the most important thing is to make decisions, even if they are wrong, because the strength of democracy lies in permitting the subsequent correction of mistakes."

One example of how a commitment to making decisions can reverse a serious situation is provided by what took place in the field of telephony. "Two years ago, the SIP Italian Telephone Company," Gaspari recalled, "had recorded losses in the billions, with the result of development reduced to zero, moribund factories and equipment neither ordered nor paid for. And then after a series of appropriate measures, the stocks on the market attracting buyers today are precisely those in telecommunications, with a highly dynamic manufacturing sector." And he added: "It was not even a matter of difficult decisions, but of having the political courage to make them."

In the radio and television field as well, time has helped to clarify the complex problems to be resolved. The hypothesis of antitrust regulation, i.e., a group of regulations capable of preventing a basic commodity, such as

communications, from becoming concentrated in a few hands, has now gained strength. Also becoming apparent is the need to avoid risking the colonization of minds, due to the purchase of foreign movies and films for television, especially American and Japanese films, which overwhelm the weakest and most impressionable consumers, such as children.

This statement met with the unanimous approval of the conference participants. In fact, the rationale of the sponsoring organizations is to establish a series of services originating at the grass-roots level, which are an expression of the common people, with their individual features and differences from region to region and from city to city.

For territorially established free radio stations--Federcultura national chairman Michele Iorio observed--there is only one path available: either to grow or to die. And it is comforting that, on the whole, such broadcasters have grown. The current problem is therefore: how to continue to grow. According to Iorio, there are two requirements: a group of regulatory guarantees, along the lines mapped out by the minister, and the prior arrangement of joint services. The growing demand of local radio stations to be able to enjoy CORALLO's services is significant evidence of this.

"Almost 100 associated radio stations, 150 served radio stations, 80 special services, 8,000 programs broadcast without additional costs: such an achievement, carried out in a single year, is proof of a constant interlacing of initiatives between peripheral and central services, which does not contradict, but strengthens the local concept."

CORALLO chairman Domenico Campogiani has the job of illustrating such prospects, which are linked in some key sectors: production, distribution and marketing of programs of a high professional level and sufficient cultural depth on cassettes; training and refresher courses for journalists, technicians and advertisers; collective purchases of equipment and respective technical consultation; trade union activity, particularly in the case of relations with the Italian Authors and Publishers Association.

Confirmation of the sector's development came indirectly from the speech of Guido Quarantotto, general director of the Italia radio division, an advertising representative which has itself invested in local radio stations. Quarantotto's personal history is exemplary in this regard: After a decade of working in the field of film advertising, in 1965 he landed Radiomontecarlo, whose image he gave a not exactly insignificant boost. Local radio has been a recent choice of his, which has paid off with an economic and advertising response beyond all expectations. The sole condition: respect for their character of broadcasters deeply established in the region, from the standpoint of both advertisers and consumers. The fact that radio, on the whole, is a medium which is "holding up" against the pressures of television is confirmed by a research project which finally sees on the list of customers both the public corporation, i.e., the RAI [Italian Radio Company] through its partner, SIPRA [expansion unknown], and the other parties involved, such as the UPA and ASSAP [expansion unknown] (which group together the most important agencies), and the research institutes ABACUS and MACROTEST [expansion unknown].

After the honorable Antonio Marzotto Caotorta, the reporter to the Chamber of Deputies on the regulatory law for private radio-tv, gave examples of the framework for the principal draft laws, with special reference to the aspects concerning radio, to Monsignor Giuseppe Casale, bishop of Vallo della Lucania and chairman of the episcopal commission on the mass media, he was given the job of persuading the participants to reconsider the basic meaning of their commitment. In this area as well--he said--"the presence of Catholics cannot tend to occupy one place, however, but rather to reawaken attention, because the cultural matrices of our country are being recovered in the wake of the pope's leadership, who reminds us to respect and love the individuality of each region: a cultural motive which becomes a reason for living. Local radio stations can and must be an instrument for real participation of the grass-roots, not occasionally, but daily."

11915  
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NORWAY

AGENCY SIGNS ORDER FOR TELETEX WITH TANDBERG AND SIEMENS

Oslo AFTENPOSTEN in Norwegian 29 Jan 83 p 9

[Text] Siemens, Inc. and Tandberg Data have been given a contract as sole suppliers of terminals for the Telecommunications Agency's so-called Teletex service which will be set up in the fall. The initial contract will be worth 25 million kroner, Telecommunications information chief Christian Bugge Hjorth told NTB.

Siemens and Tandberg Data had submitted a joint bid based on Tandberg delivering the equipment while Siemens will be responsible for the programs.

Siemens and Tandberg were victorious in the competition with 12 different bidders. NTB has learned that this was the only bid that called for all the equipment to be produced in Norway. The two firms work together closely and Siemens owns 51 percent of Tandberg Data.

Among the other bidders were Elektrisk Bureau, Standard Telephone and Cable, IBM, L. M. Ericson and Philips.

The contract involves delivery of 300 terminals, but the Telecommunications Agency has obtained the right to order more at a later date on the same terms.

The Teletex system is a kind of expanded and much more advanced telex. It can be used to send a text--a standard sheet of paper can be transmitted in 10 seconds--but also makes it possible to edit texts and perform other tasks. The primary users of the system will be firms and offices.

When the Teletex service is hooked up to the Telecommunications Agency's public computer network in the fall, Norway will be one of the first countries in Europe to put the system into operation. The system has already been established in Sweden and West Germany.

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